

macdonald



journal



★ Potatoes Are Profitable

★ Farm Buildings Today

September, 1964

MF
THE LIBRARY
MACDONALD COLLEGE



THE MACDONALD LASSIE

Editor
MARK WALDRON B.Sc. (Agr.)
Macdonald College

Associate Editor
EILEEN GOODMAN

Publisher
RONALD J. COOKE

Advertising
Montreal —
1475 Metcalfe St.,
Montreal 25, P.Q.
288-7201

Vancouver —
J. L. JACKSON
3610 Main St.,
Area Code 604
TR. 6-6541

The Macdonald Farm Journal is published by Rod & Gun Publishing Company, also publishers of Rod & Gun, Au Grand Air, The Baker's Journal, and Product News, 1475 Metcalfe, Montreal, P.Q. Authorized as second class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Price 25 cents per copy. Subscription rates are \$2.00 per year; \$3.50 for two years in Canada. U.S. and Foreign: \$4.00 per year. Address subscription renewals to Macdonald Farm Journal, 1475 Metcalfe, Montreal, P.Q.

macdonald FARM *journal*

September, 1964

VOLUME 25 NUMBER 9

CONTENTS

INSIDE	4
The editor's column	
CONTROLLED ENVIRONMENT CABINETS by Galen Driver	5
Exact artificial environment can be created for plants in cabinets where temperature, light and humidity are carefully controlled	
POTATOES PROVED PROFITABLE by Walker Riley	6
This is the story of Eugène Drouin and his 130-acre potato farm, one of 300 in Quebec	
A PLACE FOR ADULT LEARNING by Mark Waldron	8
Interview with Mr. Marcel Caron, Program Director, Desjardins Institute, Quebec	
THE CANADA BIRCH TRAIL by Dr. W. H. Brittain	9
A "Confederation Trail" has been established in the Morgan Arboretum, an avenue of white birch trees from every province of Canada	
FARM BUILDINGS TODAY by Prof. J. R. Ogilvie	10
Five points should be emphasized: flexibility, quality, cost, labour saving and environment control	
THE ARBORETUM — AN IDEAL LABORATORY	11
THE FAMILY FARM by Tom Pickup	12
News from the Quebec Department of Agriculture and Colonization	
FARM BEAUTIFICATION CONTEST	13
FOOD FOR THE FUTURE	15
THE BETTER IMPULSE	17
News and views of the Women's Institutes	
COLLEGE PAGE	22

OUR COVER: Ploughing before freeze-up permits greater absorption of water, allows air to penetrate and promotes decay of existing plants. See article on page 14. Photo by Omer Beaudois, Quebec Department of Agriculture and Colonization.



INSIDE

And The Shift Continues

ONE HALF OF the farms in eastern Canada should be scrapped or bought by neighbouring farmers. This was the recommendation of a report tabled by the Hon. Harry Hays, in the House of Commons on July 10.

This special study of eastern agriculture was prepared in 1963 under the direction of the former Minister of Agriculture, the Hon. Alvin Hamilton. This survey was carried out in Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island. If alternate employment were available, 50 per cent could leave the farm. This half of the total number of farms produces only 20 per cent of the total agricultural production. Many of these farmers are earning incomes elsewhere and should not really be classified as farmers.

Resources of these farms could be taken over by their larger neighbouring farms and the 20 per cent loss in production easily gained. This report said a national economic policy should be formed to handle re-allocation and replacement of the displaced farmers.

What does this mean? It means we have too many people involved in the production of agricultural products. This isn't anything startling. Most people have known this for a long time. New production techniques have brought about this condition. In 1941, 31 people out of every 100 were required to produce food. In 1961 only 11 were needed. This is a drop of one per cent per year, an amazing decrease — and it continues.

The farmer who has a marginal operation has a personal decision to make: to remain static, to stay and expand, or to move. The decision will be difficult. The path of least resistance is to stay — or is it? The tough decision will be to move.

If you move, what can you do? The larger farm units need farm managers and good hired employees. Good farm workers are now almost impossible to find. It might not be too bad to work for someone else. Industry is a possibility; some employment can be found. However, there is a surplus of unskilled workers in industry. Back to school may be an answer for younger men. Retraining is possible. There is a demand for professional people, and a large demand in professional agriculture.

Governments can assist; but the final decision is yours. We still need good farmers and the demand for food is increasing daily. The rural to urban population shift continues. Some of the rural population must relocate and be prepared to live and work in urban communities.

Galen Driven

CONTROLLED ENVIRONMENT CABINETS

by Galen Driver

SIX NEW REACH-IN, and one walk-in "Controlled Environment Plant — growth Cabinets" have been added to the Stewart Phytarium to almost double its capacity. These cabinets will be used by students and staff in their study of plant diseases. Within these cabinets exact artificial environments can be created for plants. The temperature, light and humidity are carefully controlled.

Under these conditions the diseases of plants can be studied and many questions can be answered much more efficiently. Why does a disease attack a crop one year and not the next? What is the life cycle of the disease? Which factors control the spread of the disease? It may be temperature, moisture, light or all three. These factors are difficult to evaluate. This is the task of the plant pathologist. He studies the causes and control of plant diseases.

To carry out his work many kinds of equipment are necessary. The greenhouse is one of the vital facilities used. However, the green house has several limitations. The temperature is difficult to control. If it goes up too high or down too low, the experiment may be set back, if not ruined. In these "Controlled Environment Plant-growth Cabinets", temperature and other environmental factors can be precisely controlled.

Students from around the world are studying at Macdonald College. The Plant Pathology Department has graduate students from India, Pakistan, Formosa, Kenya, Sierra Leone, Greece, Holland and Canada working towards their Masters or Doctors degrees. The staff try to select projects of particular interest to each student. If students from abroad wish to study diseases which occur, for example, only in the tropics, this is now possible. Tropical conditions can easily be duplicated in these cabinets and in fact several tropical diseases are now being studied.

Research results can be quickly and accurately obtained and repeated. The results are more accurate because they are obtained under precisely controlled conditions. With the addition of these cabinets, Macdonald College has one of the best-equipped Plant Pathology facilities in North America.

Plant diseases in North America cause losses of more than three billion dollars per year. Studies are continually being carried out to try and understand what causes specific plant diseases. With information, methods of control can eventually be found and this loss reduced.



Reach-in growth cabinets installed in Stewart Phytarium.



Rust is clearly visible on the leaves of these plants.
(Staff Photos)

POTATOES PROVED PROFITABLE

Although potatoes are the province's third most important crop, Quebec produces less than one quarter of the volume needed for its own use. Only 300 growers plant more than 25 acres. This is the story of Eugène Drouin with 130 acres.

by Walker Riley

HAVE YOU EVER wakened on the morning of a perfectly normal day to find before nightfall that the whole course of your life has unexpectedly changed?

That happened to Eugène Drouin on July 28, 1959. That morning, he had done the chores as usual on his Compton County dairy farm. His two boys, Bert, then 13, and Donny 10, were home on school holidays. His wife, Hazel, had left to go to her job in the plastic plant in Cookshire.

Eugène had planned a trip to Sherbrooke to see his Veterans Land Act officer. He needed a good storage for his 25 acres of potatoes. Perhaps he could arrange for a loan to build it.

Eugène found the V.L.A. agent interested in his proposition. The agent listened to his explanation that he had already reduced the dairy herd in favour of an increased potato acreage. Potatoes, he pointed out, were doing well in the area. Now he had reached the point where he needed a storage to spread out the marketing season.

As if fate were pulling the strings, the agent had just learned of a potato farm for sale in Drummond County. The owner was in poor health and could not handle the growing crop. It wouldn't hurt to see the place.

An hour's drive took the two men to Kingsey Falls. Eugène liked at once what he saw. There was 200 acres of ideal potato soil, light loam and stone free. Forty acres had been planted, but now needed attention. The machinery was good — tractors, truck, sprayers, harvester, and heavy duty irrigation equipment. The buildings were sound — a good house and sheds, and there was his potato storage ready and waiting for him. At the back, flowing the full length of the farm was the Black River.

In a flash, Eugène's imagination had placed picnic tables under the trees and tents, and fireplaces, and youngsters in swimming, and boats for fishing. For rainy days, there could be a pavilion over to the right...!

Eugène did not show a moment's hesitation. He knew this was it. By 11 o'clock on that same July morning he had bought the farm, crop, machinery and all. Hazel remembers that day vividly; it was very hot and very dry, and it was break-time in the factory when Eugène called for her. "Bring your lunch-box, Hazel. I have just bought another farm." Hazel admits she took a long time to recover.



The potato combine makes harvesting easy on the Drouin farm. Bulk handling will shortly replace these barrels.

A new farm at Kinsey Falls

Events followed in quick order. The home farm at Sawyerville was put up for sale; within a month, there was an auction of livestock and surplus equipment. A few days later a cash buyer was found for the farm. By the time school opened in September the Drouin family were re-established on their new farm at Kinsey Falls.

That was five years ago. Today, 130 acres are growing excellent crops of potatoes, the boys are taking their full share of the work and responsibility, the house and grounds are neatly comfortable, an attractive arched gateway welcomes visitors to the beach. Indeed, the whole farm carries the appearance of family pride and prosperity.

It has not been all easy going. There have been good years and bad ones. The Drouins have made mistakes, but they have learned from them, and are willing to share their experience with others.

The year starts on the Drouin farm with ploughing as early as possible in the spring. The light soil requires little further working before planting. Before the snow is off the hills in late April, the potatoes are in the ground.

With many of the fields in continuous potatoes, Eugène cannot afford the risk of disease. He buys fresh certified seed each year usually from the same grower in New Brunswick. He prefers small seed, not only for the economy, but he believes there is less incidence of disease.

Treatment of seed

Seed is mechanically cut into sets, treated against surface pathogens and planted the same day. On this latter point Eugène is insistent. "Cut sets will heat overnight," he says. "It hurts germination and increases the risk of Blackleg." Nor will he plant when the soil is hot and dry. He believes this causes gaps in the row; the freshly cut sets simply dry out. Others think rolling the ground after planting may beat this problem.

Fertilizer is another heavy annual expense — \$6,500 this year for 130 acres. He follows closely the recommendations of a good commercial company who does the soil tests and keeps a close eye on the growing crop. This year, he used 1500 pounds 8 - 16 - 16 to the acre, plus a small amount of magnesium. Limestone is applied not more than one ton per acre per year to hold the soil acidity at 5.8 pH.

The fields are cultivated once after planting with a peg-tooth harrow, and the potatoes are hilled twice during the season. This, up to the present, has given satisfactory weed control. Another year, Eugène plans to try herbicides to catch lambsquarter and pigweed.



Eugène Drouin presses the button to start his efficient irrigation pump. He is assured of an excellent water supply.

Pest control program

Spraying to control insects and disease starts when the potatoes are six to eight inches high, at a cost of \$100 for materials each time; this is repeated every ten days for the rest of the season. Eugène finds Early Blight and Late Blight fairly easy to control, but he is worried by the increasing number of leaf hoppers, potato bugs, and flea beetles that are escaping the treatment. "I don't know what we are going to use next year," he says. "We will have to find some new recipe." Wireworms have never been bothersome. There is rarely any scab, silver scurf, or the black dots of Rhizoctonia on his potatoes, but sometimes the tubers have hollow hearts: "That's from growing too fast," he believes.

Eugène irrigates by the feel of the moisture and temperature of the soil; during a dry spell, the sprinklers are moved every four hours. His equipment will pump 500 gallons per minute at 80 pounds pressure. The sprinklers each deliver 10 gallons per minute over a 60 foot circle. No water is used close to harvesting: it lowers the dry matter content of the potatoes.

Toward the end of August, the Drouins prepare for digging. Chemicals are sprayed on to kill the tops. Four days later, the roto-beater is used lightly followed by a second application of top-killer mixed with oil. Ten days later, when the potatoes have sufficiently matured, digging starts.

They have been using a potato combine which requires a crew of eight men.

But it needs repairs, and Eugène is looking at a new \$7,000 machine. He figures the saving of four men's wages by handling the crop entirely in bulk will justify the expenditure.

In the storage, the potatoes are held at 60° for a few days, then the temperature is lowered to near 40°. Three fans and a stove help to control the environment.

Most of the Drouin potatoes are sold as table stock in 50 pound bags to stores in the surrounding towns and to the wholesaler in Sherbrooke. Sometimes, their insulated truck goes into the Montreal market. "We are always sure of selling our potatoes, even though the price has been low the last few years," Eugène declares. He finds that buyers prefer local potatoes, but they can't always get them. Only one bag in five offered on the Montreal market in 1963 was grown in the province.

Potato chip industry

Eugène has in past years sold to potato chip factories in Magog and Warwick. But although this growing industry, with Quebec sales of \$7,000,000, pays a high premium for special potatoes, he finds this market too exacting in its requirements, and the risks of loss too high for his present facilities.

The buyers want a potato which will make a crisp, light brown chip with little waste and absorbing a minimum amount of fat. It must have a high solids content, and be low in content

Continued on page 21

A Place For Adult Learning

The Desjardins Institut, Levis, Quebec, has been open for less than a year. It is designed for adult learning. Recently, Mark Waldron, Director of Extension at Macdonald College, visited this centre. The following interview took place with Mr. Marcel Caron, Program Director, of the Desjardins Institut:—

CARON: The Institut was officially opened on the 4th of December, 1963, and we started to receive groups on the first week of January. The Institut can accommodate up to 88 persons in single rooms. It has all of the modern facilities for adult education to prepare people to explore new ideas in the roles that they have in their organizations or in society.

WALDRON: How did this all begin ?
CARON: I think it was obvious for a long time. The Desjardins Movement or the Caisse Populaire Movement, is 62 or 63 years old. There are tremendous changes taking place. We need a well-organized program of training and adult learning for those engaged in managing or directing the caisse populaires and the organizations attached to them. So we surveyed what was being done and realized that several educational programs for adults were going on in the various parts of the Movement, and that we were using all types of facilities which were not facilities truly adapted to adult education. We all agreed that we should have a centre, and then it was a matter of planning the type of a centre we wanted to have.

WALDRON: Did you visit other centres in North American or in Europe to see what other people were doing ?
CARON: Yes, a special committee visited the Antigonish International Centre in Nova Scotia, Western Co-op College in Saskatoon, and a couple of American centres. But to tell you the truth, I think it was more the result of six months of putting ideas together

and of reflection, and of trying to get together with adult educational experts, like Guy Beaugrand-Champagne, Irene Bonnier and a couple others. We tried to put down on paper, before we even called an architect, what would be the ideal centre for adults; what it would need, so that the programs could be carried on, on the principle of communication between peoples who were already engaged in some action. People who have scales of values, who have experience, and certain traditions in doing things, are more at ease if they are in a situation where they can confront their ideas. They can even put the structures in question, put their own deportment in question.

WALDRON: I believe most of your students come from La Province de Quebec, but are you planning to have other students from other parts of the world go through this learning experience here at the Institut Desjardins ?

CARON: We are going to receive a group of six Cambodians. They are directors of adult education programs in Cambodia. They start the first of June for a three-month program. To this group will be added Canadians who are going in a teaching capacity in Laos and in Cambodia. Probably a dozen of these teachers, who, with the co-operation of the Canadian Government, will come and "live" this experience that we are preparing for the Cambodians. The idea in this is to permit these Canadians to be more universal when they arrive in these countries. They will do more than just teach, they will participate in the problems of the peoples in the villages and help them to learn

through the process of self-help.

WALDRON: They would not only be teachers but also community development officers.

CARON: Yes, they would have some basic knowledge of this and would be aware of the possibilities of adult leadership development in these countries.

WALDRON: Let's come back to the centre itself.

CARON: In addition to the rooms, the study area is made up of four, what we call "situation rooms", fully equipped with modern facilities for adult learning. There is the dining room which accommodates the group of 88 or a few more, if necessary. There is a gymnasium, so that adults can be physically fit at the same time. The area in which we are now is the living room. It also has an atmosphere of community living.

WALDRON: Outside, too ? I think you have plans to duplicate discussion rooms, using the trees and special landscaping.

CARON: The development that is going on now outside will permit us to repeat the situation rooms outside.

WALDRON: How much did this centre cost ?

CARON: Well, it is going to be a bit over \$800,000 when it is all completely finished.

WALDRON: How much do you charge per day for a conference ?

CARON: At the present time, we are charging \$10 per day to the non-profit organizations in the field of economics

Continued on page 21



Dr. Brittain inspects an old birch near Annapolis, N.S.



An Alaskan birch near Klondike River, in the Yukon, N.W.T.

by **Dr. W. H. Brittain**

Scientific advisor to the Arboretum

THE CANADA BIRCH TRAIL

WE HAVE ALL heard and read these days much discussion of a new Canadian flag and the Maple leaf enters into most of the designs proposed. It is true that the Maple leaf has behind it the weight of tradition, in addition to which it is highly decorative, lending itself well to heraldic treatment. Actually, however the Maple is not a characteristic Canadian tree. In fact it is characteristic only of Eastern Canada.

A much more characteristic hardwood tree is the White Birch. This splendid tree is a familiar and pleasing feature of the Canadian landscape from St. John's, Newfoundland, to Victoria, B.C. Its variety, the Mountain White Birch extends its eastern range into the northern area of Ontario, Quebec and Labrador. In the west the Alaska White Birch carries it far north, even beyond the Arctic Circle. Better than any other tree, therefore, it fits the blazon on our coat of arms, "A mari usque ad mare".

In the Morgan Arboretum, at Macdonald College we now have growing side by side specimens of White Birches

from all our provinces and territories. Anyone looking over this living collection could not fail to note the fact that the white birch is a very variable species. Moreover, each major area consists of a complex of types characteristic of that particular area. This widespread species, therefore, reflects the geographical differences existing between the different parts of Canada. In a more purely symbolic way it reflects the ethnic mosaic of the Canadian population.

Moreover, these are not the only reasons why the white birch must hold a special place in our regard. For this tree has played a major role in establishing Canada within its present boundaries. It was the birch bark canoe, light enough to carry over the rapids but large and strong enough to carry cargo, that made possible an east-west trade route long before the C.P.R., let alone the trans-Canada highway, were even a dream. The highway of the voyageurs through the heartland of Canada is the homeland of the white birch, which is, therefore, more characteristic of Canada than even the beaver and

certainly more than any other hardwood tree.

It was with these facts in mind that the idea took shape of establishing within the Morgan Arboretum a "Canada Trail" or "Confederation Trail" consisting of an avenue of white birches, composed of specimens grown from the seed of trees collected throughout its Canadian range.

In 1967 it will be possible for any Canadian to walk along this trail and observe the trees labelled with the names of localities from his own province or territory. When possible the collection is associated with some historic event or personality. For example, when in Dawson City a collection was made on the "Discovery Claim" where Carmacks made his original strike, which preceded the great Yukon gold rush. In the last, a collection was made at the birth place of Sir William Macdonald, the generous founder of Macdonald College. The concept and execution of this project is the work of the Morgan Arboretum and its staff and constitutes an appropriate and imaginative contribution to the celebration of this historic event.

FARM BUILDINGS TODAY

by Prof. J. R. Ogilvie
Dept. of Agriculture Engineering



(Top) This 24-foot clear span wood truss is light but strong.
(Above) For best results, plans must be followed carefully.

FARM BUILDINGS are a large portion of your farm investment. And they cost much more than grandfather's did. But what else can you do? These buildings are a piece of production equipment just like your mower, plow or combine. You may be deciding to build this piece of equipment right now. But this piece of equipment cannot be traded in, cannot be sold except, as part of the farm, and it may be costly to modify after it is built. Take your time! Look around! Most farmers do not build more than one piece of this equipment in their lifetime.

A building as a production unit must provide the best conditions for your crop or livestock. At the same time the inside should be flexible. You may want to change it to suit a different crop or a different size or class of stock. Methods of housing pigs, poultry, beef and storing forage crops or fruit and vegetables are changing quickly today.

The new units try to put more crop or livestock into a given space. Control of inside conditions is important. New practices set up work areas so that feeding and cleaning can be done by machine. Labour saving is the key. Owners are trading their money for efficient, low labour, farm buildings.

What's new

The main emphasis today is on five points — **FLEXIBILITY, QUALITY, COST, LABOUR SAVING, ENVIRONMENT CONTROL** — in farm building construc-

tion. Here are some changes in practice that fit these five points.

Good quality concrete — Strong, watertight, dust-free concrete can be made but this takes care. The standard of the industry used to be concrete that broke under 2500 pounds per square inch pressure. Now 5000 pounds per square inch is common. The only difference is in clean mixing materials (sand and gravel), not more than $5\frac{1}{2}$ gallons of water per sack of cement and proper mixing. Concrete that can be poured is usually not as good as concrete that stays where it is placed. Use clean sand and gravel, mix them well, and measure the amount of water per sack of cement.

Pole frame buildings — Pressure treated wood poles support many large city buildings in the form of piling (poles driven into the ground to their full depth). Such poles could support your machinery shed too. By treating wood with certain chemicals, rot and insects are prevented. At least 40 to 50 years of life can be obtained. The poles form the foundation and the sidewall supports at the same time. Erection is quick and economical with local labour.

Clear span buildings — To suit the demand for flexibility in inside arrangements, methods of spanning from wall to wall were developed. A structure called a truss is one way of doing the job. A 24-foot truss is shown in the photo but widths up to 60 feet can be built. Other methods are used for farm buildings to span the width of a building without posts. Many of the wooden types can be made on the site with your own

or hired labour. The trusses or frames are designed to carry the snow, wind, and ice load for a particular area. Plans must be followed closely to obtain all the benefits without weakening the building.

Environmental control — Research has shown the best temperature and humidity for each type of livestock and crop. And with some crops even the amount of each gas in the air is important. To maintain these conditions requires insulation in the walls and ceiling to slow the loss of the inside heat. Each animal produces heat which can be used to warm the air around itself. This heat cannot be lost through the walls or the inside temperature will go down. Most common today is 4 inches of batt type insulation in the walls and 6 inches in the ceiling.

Animals also produce moisture in their breath. This moisture must be removed or the humidity would build up until rain fell in the barn. Electric fans help to remove this moisture but they also take out some heat. This is another reason for more insulation. Control of the inside conditions both summer and winter is planned in most new buildings for livestock housing.

A Building Guide

If you are one who is thinking about a new farm building here are some points to consider.

The cost of new construction including all equipment.

\$ 25 - 40 per market hog for a pig
\$500 - 700 per sow farrowing pen
\$ 3 - 5 per laying hen
\$500 - 800 per milking cow including some calf housing
\$100 - 150 per beef animal for finishing building

The difference in price will depend on the type of construction, the type of equipment, and the extras added to the basic building. Be aware of the full price you must pay. The frame of the building is only part of the cost

The layout of the building, to tie in with present buildings, must be planned. Here odour control, appearance, snow and wind control, and access to roads and lanes are important. Proper location of windbreaks can limit snow drifting and cut down drafts on livestock in open front buildings.

The interior arrangement is the key to labour saving. The placing of stalls, pens or space to suit the crop or livestock should take most of your planning time. Space given to each animal or crop should be in line with new practices. Possible future types of livestock to be housed may affect your decision. Pens and work alleys must be placed so that steps will be saved in feeding and cleaning. At the same time keep in mind that these chores might

The Arboretum — an ideal laboratory

Annual Meeting, July 9 - 1964, of the Morgan Arboretum & Woodland Development Association

F. A. Harrison president of the Morgan Arboretum and Woodland Development Association, recommended that Macdonald College examine the possibility of establishing a post-graduate course in natural resources management and development and land use with a view to training experts in soil, water, wildlife, rural and outdoor recreation activities.

He also urged that the scope of the Department of Woodlot Management, sponsored and supported by the Association, be expanded to include a two-year diploma course in forestry for undergraduates, allowing them either to continue studies towards a bachelor's degree or to qualify immediately as forestry technicians. The diploma course could also train conservation technicians.

Mr. Harrison, vice-president of Canadian International Paper Company, addressed the 13th annual meeting of the association held at the Arboretum. He was elected to a fifth consecutive term as president.

The Arboretum itself would be an ideal laboratory for the practical work entailed in the proposed Master of Science degree course, open to forestry, agriculture and other non-forestry undergraduates interested in land-use problems and the science of natural resources management. The department would act as the co-ordinating body.

"The Morgan Arboretum and Woodland Development Association definitely does not want to see the work being done here remain in a static condition," Mr. Harrison stated. "The De-

partment of Woodlot Management is making headway in building up facilities to help meet the urgent need for trained specialists in the land-use field, including natural resources development and management."

In calling for greater support for the Association, he said: "Only one fifth of the Arboretum budget comes from the University, and we have to count mainly on the industrial group for the funds required to carry out our program. All industry has a tremendous stake in proper woodlot management, no matter what product a company may manufacture or market. The forest and its output, of which the farm woodlot supplies an increasingly large proportion, is basic to the economy of this country and particularly to Quebec."

Reforestation and multiple land use can open up new avenues of income to the small farmer, helping him to improve his living standards, Mr. Harrison declared. By reforesting marginal lands and by opening the farm area for limited but specific family recreational purposes for city dwellers, the farmer can achieve this goal.

The Association conferred honorary membership on W. Gilchrist, president of Eldorado Mining and Refining Company and of Northern Transportation Company, and on R. T. Flanagan, senior forestry officer of the Department of Northern Affairs and National Resources for their collaboration with Dr. W. H. Brittain, scientific adviser to the Arboretum, who has been making a country-wide collection of white birch specimens for planting at the Morgan Arboretum.

later on be done by machine. Put each crop's storage area together to make loading and unloading simpler. Find out the temperature and other condition you require inside the building.

Get a builder or a plan for a building which will cover your proposed layout and provide the interior conditions you want. Keep in mind strength, durability, appearance, availability and cost of the building and the materials which you are offered. Plans are available from the provincial governments and through the agricultural colleges.

Many commercial firms have buildings which are especially designed for certain types of use. They often supply erection services too.

Get a contract price for the building and each piece of equipment going in. No matter how well you know the builder, a signed contract and a set price will save you money. Too many "by the hour" estimates have turned out to cost twice as much. Any good builder will be able to calculate the material and labour required for the job. You must know what you want or else you deserve what you get.

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE

QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by T. Pickup of the Information and Research Service,
Quebec Department of Agriculture and Colonization.

This month in the FAMILY FARM Section

Page 12

Cheese makers appeal for cleaner milk

Page 13

Farm beautification contest

Page 14

Advantages of fall ploughing; fruit and vegetable storages; maintaining milk yield

Page 15

Food for the future

Page 16

Soil studies in Quebec; merging dairy establishments; strawberry growing

PHOTOGRAPHS BY
OMER BEAUDOIN



Monique Lapointe helps her mother clean the milking equipment at Jonquiere.

CHEESE-MAKERS APPEAL FOR CLEANER MILK

DAIRY FARMERS who send milk to cheese factories can ensure higher returns for themselves immediately, by carefully washing their milking equipment and promptly cooling the milk. This reminder is issued by the authorities of the Dairy School at St-Hyacinthe, commenting on the notes of alarm coming from cheese manufacturers concerning poor-quality milk from which it is impossible to make commercially acceptable cheese. Losses to the milk producer are reckoned at seven cents per pound of cheese, or the equivalent of about 70 cents per 100 pounds of milk.

Milk production at the farm is usually at its peak during warm weather and at harvest time when the farmer, with a great many things to attend to, may

neglect to wash the milker properly and cool the milk promptly and well after it has been drawn from the cows. Bacteria multiply in countless numbers in dirty milking equipment and, surviving pasteurization, render the milk they contaminate unfit for the production of good cheese, regardless of the care and skill of the manufacturer. The defect of Cheddar cheese known as "fruity flavour" is due solely to dirty milking machines.

Dairy farmers are therefore asked to follow the advice of cheese manufacturers and managers of cooperative cheese-factories who, on behalf of the cheese-makers, recommend careful washing of milking equipment and thorough cooling of milk. The farmer's profits depend on it.



A beautiful old French farm-house at Charlesbourg, Quebec.

WIHING TO encourage in the farmers of Quebec a sense of beauty, neatness, and cleanliness, the Hon. Alcide Courcy, Minister of Agriculture and Colonization, is taking advantage of the holding of the 1967 World Exhibition in Montreal to launch a big rural beautification contest.

It is hoped that a large number of farmers will take this opportunity to embellish their property and thus make our countryside more attractive to the residents of Quebec and to the millions of others who will visit the Province during the World Exhibition.

TERRITORY

The competition will be held throughout the Province of Quebec.

CONDITIONS

To be eligible to take part in the competition, a prospective contestant must:

- 1) be a farmer;
- 2) enter for the competition before the 30th of April 1965;
- 3) pay an entry fee of one dollar.

CLASSES OF COMPETITORS

The competition will consist of two classes: a general class and a special class: —

GENERAL CLASS

Competitors: this class is restricted to professional farmers; it is not open to amateur farmers, gentleman farmers, farms operated by institutions, religious communities, companies or corporations.

Basis of awards: prizes will be awarded on the basis of progress made during the contest; i.e., according to the difference between the number of points marked on the competitor's score-sheet at a preliminary inspection prior to April 30th 1965 and the number of points he scores in the final judging which will take place between July 15th and August 15th, 1967. By this system of scoring, farms which have not previously been beautified will not be unduly handicapped.

Competitive groups and prizes

- 1) Competitors in the general class will be divided into groups of 150, either on a county basis or otherwise. In some cases, a group may be spread out over several counties; in others it will cover only part of a county.
- 2) Each group of 150 competitors will be allotted a total of \$900 to be distributed in the form of 14 cash prizes, subject to the attainment of certain minimum gains, as follows:

Prize	Minimum gain
1st : \$200	50 points
2nd: \$150	45 points
3rd: \$100	40 points
4th: \$ 75	35 points
5 prizes of \$50	30 points
5 prizes of \$25	25 points

- 3) In each group of 150 competitors, the first prize will be awarded to the farmer who has made the biggest gain in points since the start of the contest,

FARM BEAUTIFICATION CONTEST

provided that this gain is not less than 50 points. But if, for example, the leading competitor has a gain of only 43 points, he will not qualify for anything higher than a third prize. Similar reservations, as listed above, apply to the other prizes.

- 4) In cases where two or three competitors make equal gains, the prize or prizes will be divided equally among them.

SPECIAL CLASS

Purpose : This class is intended to confer special distinction upon any person or institution whose farm is already being maintained at a high standard of appearance or can reach such a standard during the contest, and provided that there are a number of large ornamental trees on it already (see the special clause concerning the size of trees, on the score sheet).

Competitors: Professional farmers, amateur farmers, gentleman farmers, farms operated by religious communities, companies, or corporations.

Awards: A certificate signed by the Minister and Deputy-Minister of Agriculture and Colonization, and a medal, will be presented to every competitor who makes a score of 80% or over in the final judging. These awards will be graded as follows:

Points	Award
90% and over	Gold medal and certificate
85 to 89	Silver medal and certificate
80 to 84	Bronze medal and certificate

In the special class, there will be no preliminary inspection nor grouping of competitors.

BASIS OF JUDGING

Judging will be based on the condition and appearance of the approaches to the farm, i.e., the judges will take into account everything that can be seen from the public road and from the farm-house.

INFORMATION

Further information about this contest, including score-sheets showing items for which points will be awarded or deducted, may be obtained from: —

*Farm Beautification Competition,
Agricultural Associations Section,
Building D, Room 326,
Parliament, QUEBEC, P.Q.*

ADVANTAGES OF FALL PLOUGHING

The maintenance of arable land in good tilth calls for a number of operations with the aid of various implements that have been designed to move or stir soil in one way or another. Mr. Nazaire Parent of the Quebec Department of Agriculture and Colonization points out that the first of these operations is ploughing, which is done for the purpose of deriving the greatest possible profit from the soil in the form of crops.

To do this task effectively, it is not enough to be simply a good ploughman; it is also necessary to take into account the nature of the soil and subsoil, and to regulate the depth of ploughing to suit the future crop. Clay soils especially need deepening by good fall ploughing. In order to promote the breaking down of the lumps of soil, and also from the point of view of a better distribution of the year's work, it is advantageous and economically sound to do all the ploughing during the slack season in autumn. Alteration of the structure of the soil before freeze-up permits greater absorption and retention of water, allows air to penetrate the soil, and promotes the decay and incorporation of the roots and stems of the existing plants.

The final aim of ploughing is the complete destruction or transformation of all the plants that were formerly growing on the soil, in order to prepare the ground for a fresh sowing under the best possible conditions. On a family farm under a system of mixed farming, the aim is to grow a good crop of grain followed by a good stand of forage plants suited to the needs of livestock. Depending on whether ploughing is well done so as to allow rapid draining away of water from rain or melted snow or, on the other hand, not well done, seeding will be possible earlier or will be delayed. Good fall ploughing facilitates tillage of the soil next spring, permits early sowing, and favours high yields.

AID FOR CONSTRUCTION OF FRUIT & VEGETABLE STORAGES

On the advice of the Committee on Agricultural Policies, composed of representatives of the U.C.C., the Coopérative Féderée, the Corporation of Agronomes, diocesan almoners of colonization districts, Farm Forums, and the Department of Agriculture and Colonization, it has been decided that money hitherto granted for the construction of individual fruit and vegetable storages will henceforth be used for the establishment of cooperative storages. The reason given is that subsidization of small individual storages

is opposed to the policy concerning the construction of cooperative storages which favours more orderly marketing of farm products.

Centralization of storage facilities will make it easier for growers to meet present market requirements, which are themselves becoming increasingly centralized in the hands of a limited number of buyers who look for constant supplies of large quantities of well-graded products of uniform quality.

It is believed that growers of fruit and vegetables will understand the reason for the recommendations made by the organizations representing agricultural interests, and the Department's decision to follow this advice.

IMPORTANCE OF MAINTAINING MILK YIELD

For a dairy cow to give a satisfactory yield, she should be milked for a period of ten months, according to Mr. Bruno Gélinas of the Animal Productions Division of the Quebec Department of Agriculture and Colonization. During the other two months of the year, she will have a chance to rebuild the tissues depleted by the work of milk secretion, form a better calf, and regain vigour for the next lactation.

During her ten months of lactation, the cow should be given the best possible care so that her milk yield does not suffer any temporary decline. It is in the fall, when the animals are put back into the barn for the winter, that their milk production falls most rapidly: indeed, in many cases, it stops altogether rather abruptly after only seven or eight months, lactation. The ensuing loss of two or three months' milk production often absorbs all the dairy farmer's profits. The cow is an animal that easily acquires bad habits. For instance, if she is allowed to go dry at the beginning of November in one year, she will be inclined to do the same in the following year.

The change from pasture to barn always tends to reduce a cow's milk yield. For this reason, in the barn, she should be fed a ration which comes as close as possible to fresh, green fodder as regards nutrient content. Such a ration should include legume hay, silage or succulents, and meal.

In addition to being fed properly, the dairy herd should be kept in a clean, well-ventilated barn. In a sanitary building a good cow will normally remain healthy, make good use of her food, and give a profitable yield.

This, and previous page, supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

FOOD FOR THE FUTURE

The problem in many countries where there is an urgent need to produce more food is how do you induce the farmer to produce that necessary "more"?

THE MOST SERIOUS contemporary threat, surpassing the threats of nuclear war and political upheaval, is the increasing disparity between food and population. A third of the human race is underfed already and the world population is confidently expected to double by 2000 A.D.

There is now general agreement that the most effective way to help developing countries is to teach them to produce food locally rather than to send them food produced elsewhere. As the old Chinese proverb has it: "If you give a man a fish you feed him for a day; if you teach him to fish you feed him for life".

But you cannot teach what you do not know, and there is no reason to think that we know how to produce adequate amounts of food in many of the problem areas. We do know many things that will be of use in almost any area. We know the properties of fertilizers and how to make them; we know how to make tools and pumps; we have improved varieties of many crop plants, and so on. No one should underrate the importance of spreading this kind of knowledge, but it is reasonable to doubt whether it alone will suffice to meet even the present demand — let alone the demand that can be foreseen.

Furthermore, improvements in the techniques of traditional agriculture will merely increase supplies of the existing types of food. These are already known to be seriously deficient in protein. This is particularly true in the humid tropics where cassava, the various forms of yam, and bananas are staple foods.

The most difficult immediate problem in human survival is to make life as ample and acceptable in the wet tropics as elsewhere. It is a pity that the problem does not attract more interest and very much more support. Most of the world's research effort goes into work of military or purely academic interest. It is directed towards such themes as the mischances that befall someone subjected to zero "g" or to several atmospheres pressure in different gas mixtures, and strives to

find means for minimizing these mischances. There would be equal academic interest in finding out what happens to a man at —1 "g", when he stands on his head for a long time, or under the influence of a vast range of other toxic environments. These things are interesting, but 1,000 million people are not suffering because we do not know them.

It is therefore monstrous that so large a part of the world's scientific manpower and research finance is devoted to work of this type rather than to finding out how to feed people properly, and then to seeing that they are fed. As the Food and Agriculture Organization forces people to realize the extent of the problem, and Freedom from Hunger campaigns get into their stride, the point of view is getting more general acceptance. But it is not new. John Gerarde, in a note that he wrote in 1597 for his "Herball", remarked: "Who would looke dangerously up at [Planets, that might safely looke down at [Plants?]

It is not only individual safety that is at stake here, but also the safety of the human race. The story is told of a farmer who, having been taught how to double his yield of maize by the use of better seed and more efficient methods of cultivation, the next year sowed only half the number of rows. When asked why, he answered with simple logic that this was all he now needed to feed himself and his family and that the wonderful things he had been taught would enable him in future to work less and enjoy more leisure. This story illustrates one of the great difficulties in many countries facing an urgent need to produce more food: how do you induce the farmer to want to produce that necessary "more"? His attitude is, after all, no different from that of his fellow worker in the highly industrialized countries. Both feel that the first fruits of increased productivity should be greater leisure. It is only when the worker sees the pattern of a better future clearly that he is willing to sacrifice his leisure for more desirable benefits.

The techniques of agriculture, on which the leadership of the well-fed nations depends, were developed in temperate climates. As the influence of people brought up in these climates has extended, their methods have been applied in increasingly improbable environments. It may well be that this policy is nearing the end of its fruitfulness and that attention should now be given to the possibility of developing systems of agriculture based on the native plants and animals.

Furthermore, the real function of an animal in a system of agriculture needs more general recognition. Put crudely, its function is to get rid of carbon. The ratio of carbon to nitrogen in the principal plant foodstuffs is larger than in a properly balanced human diet. But animals do not get rid of the carbon efficiently; they turn, at the same time, the greater part of the nitrogen in their plant food into excreta. Plants can of course reconvert this into protein, but it is inefficient to have most of the nitrogen going round in a cycle rather than coming out as food.

One of the essentials of peaceful human survival is the realization that it will probably not prove possible to provide adequate protein supplements even for a world population of 3,000-4,000 million by the use of land animals as converters. Full exploitation of the potentialities of fish would be a great help, but even with that the outlook is uncertain. This is undoubtedly a pity, for animal products are widely relished.

The outlook is not, however, wholly gloomy for there are extensive areas in the world that are so rough or steep that cropping by goats or some similar animal would be more productive than crop-raising, and even the most sophisticated agriculture will produce many residues that can probably be

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

efficiently converted to human food by animals as in any other way.

Work on breeding and selecting new species of animals and plants, adapted to environments that are at present used inadequately, can be done at once if the staffs of existing institutions choose to start it. But, before the benefits of civilization can be extended to all the inhabitants of the wet tropics — the largest remaining under-exploited environment in which large numbers of people can live, — a series of radically new institutes will be needed. Broadly speaking, they will be institutes of food technology, but they will not be exclusively concerned with making familiar products in a new environment. Instead they will reverse the normal concept of agriculture and, having found which plants grow most vigorously and abundantly in some environment, will try to find ways of making something useful from them. In the present state of world nutrition, most attention should be directed to sources of protein that are unused or under-used. Oil-seed residues, leafy crops, and roots that are looked on as unpalatable or even unfit for human consumption, could be turned into food after they have been refined by the methods of biochemical engineering.

The main by-products that will be made in the course of separating the pre-formed plant proteins will be fats, sugars, and polysaccharides; it is because of the presence of these that so many plants have an inconveniently low protein content. But the chemical industry can "fix" nitrogen abundantly, and with its help micro-organisms can turn these by-products into more protein. Given the by-product, this is a more efficient way to use extra fixed nitrogen than putting it on the land as fertilizer.

These proposed institutes will not be effective if they restrict themselves to finding out how to make more food in undernourished regions. They must also popularize the novelties. This has often been neglected; useful products, like food yeast, have been made and then left to other organizations to use. These other organizations have had other interests, have been inefficient, or have not existed.

(From *Survival and Hunger* an article by N. W. Pirie, head of the Biochemistry Department of the Rothamsted

Agricultural Station, published in Viewpoint, Issue 7, 1964.)

SOIL STUDIES IN QUEBEC

Among the many activities busily pursued in the summer season is the useful one known as "soil classification".

Last year, six teams of specialists carried out a detailed study of soils in the following regions: Abitibi East, Portneuf, Chicoutimi and Petit-Saguenay, Dorchester, Montmagny, and Temiscouata. During this systematic study, these teams traced the limits of different soil series and marked them on survey maps, to a scale of 1:50,000. The observations will be published in a report covering each region. So far, studies have been completed in 38 counties and the necessary information has been gathered for 16 counties. Six other counties will also be included in this detailed classification involving a systematic study, and analysis of samples from soil profiles.

A classification of soils according to their agricultural possibilities and uses was also carried out in 1963. In this connection, five maps have already been published and are available; namely, for the counties of Rivière-du-Loup, Temiscouata, Rimouski, Matane, and Matapedia. Similar maps for Gaspé North, Gaspé South, and Matapedia will be published in the course of the year.

In view of the priority given to the ARDA programme, the authorities of the Department of Agriculture and Colonization have decided, starting this year, to draw up soil-use maps, in accordance with the Canadian system, for all the counties for which soil maps exist. It is estimated that the classification of soils of more than forty counties should be finished within a period of one year.

This year, in addition to the work already mentioned, the teams will carry out soil surveys and classification in the following regions: the Magdalen Islands, Temiscouata, Dorchester, Ile d'Orléans, Ile-aux-Coudres, Portneuf, and Charlevoix.

INCREASED AID FOR MERGING OF DAIRY ESTABLISHMENTS

In order to encourage and hasten the consolidation of establishments manufacturing dairy products, so as to enable them to reduce the relative size of their operating costs by increasing the scale of their production, the Department of Agriculture and Colonization has recently increased, from \$2,000 to \$3,000, the maximum grant payable to any owner of such an establishment that is in a state of operation, who acquires a similar establishment with a

view to a merger or amalgamation. This announcement is made by the Hon. Alcide Courcy.

Payment of the subsidy is made to the beneficiary at the rate of three cents per pound of the fat that was delivered to the establishment being taken over during the year preceding the sale.

At the end of 1963, there were 569 licensed establishments for the manufacture of dairy products in Quebec, i.e. 29 fewer than in the year before. The increased subsidy announced by the Minister of Agriculture and Colonization is intended to encourage owners of such enterprises to add to the number of desirable mergers.

STRAWBERRY GROWING

Our agriculture must be made more profitable. In this connection, strawberry growing is an attractive enterprise, because the demand for strawberries in Quebec is almost double the locally grown supply. (The Province produces only 6,500,000 of the 12,000,000 pounds it consumes). Besides the fresh fruit, our market requires strawberries in the frozen state, in jam, in ice cream, and other forms.

There is a profit to be made from strawberry growing, as it is not difficult to obtain yields of seven tons of berries to the acre. In 1963, the Agricultural Cooperative society of St-Jérôme handled 300,000 pounds of strawberries from the plantations of 17 growers, who received a net price of 19 cents a pound for them (as compared with the 14 cents received by their independent neighbours).

"Here is a budget-balancing source of income", concluded Messrs Bruno Landry, Florent Morency, and Paul Vanier, and Dr. Jean David during a recent study day at l'Assomption. Mr. J. A. Ste-Marie stressed the importance of good growing methods, and Mr. Edward Duchesne emphasized the need for quality, and volume and continuity of deliveries.

More than 350 strawberry growers attended this study day — a hundred of them coming from Quebec and Trois-Rivières. At the end of the afternoon, the visitors went to the farms of Mr. Ovila Giguère and Maurice Laveau, at Lavaltrie, where there were demonstrations of machines for the tending of strawberry plantations and the spreading of straw on them, etc. The three artificial ponds for irrigation purposes also attracted attention.

The event was organized by representatives of the Quebec Department of Agriculture and Colonization in cooperation with the staff of l'Assomption experimental farm.

The Better Impulse

NEWS AND VIEWS OF THE
WOMEN'S INSTITUTES OF QUEBEC

FROM THE OFFICE

From Country Woman, magazine of the Australian CWA, "LOST. One knitted pair bootees and one bonnet belonging to a set. These were missing from one of Stuart Group's exhibits. Would the finder please return them to Head Office Handicrafts. They have apparently got mixed in the repacking rush after Conference closed."

We could have written it ourselves, because we missed a pair of bootees when packing up our exhibits for their return mailing. Fortunately, before we really had time to despair, the janitor came in with them, found among the wrappings and boxes.

BRANCHES OF THE AIR

Australia, the country of wide-open spaces, is the one which has the famous 'Branches of the Air' where the members sometimes hundreds of miles apart sit by their wireless and the meeting is conducted by air.

COUNTY PROJECTS — ARGENTEUIL

The Lachute branch of the QWI, organized in April 1932, decided to provide a corner of the basement for start a library in 1935. The first President was appointed chairman of a committee to look after the project and also to act as librarian.

Each member was asked to contribute a book. Owing to the enthusiasm and interest, in a very short time there was a total of 400 books. A former citizen of Lachute who owned a book store in Montreal, helped with constructive ideas and also supplied good used books, as well as new ones.

The Board of Lachute High School provided a corner of the basement for shelves and space for a desk. After the new school was built they were given a large room with glass bookcases on the second floor and ample space for the 2,000 books.

The library is open once a week. There is a membership fee of ten cents a book per week for those who are not members of the WI. There is a good choice of the newest in fiction, biographies, etc.

One lot of books was sent to a veterans' hospital and they have also assisted other branches in the county

to start their own libraries. They have received only one grant from the town council during these years. Otherwise the library has been self-supporting. A committee of five ladies give their time to this very worthwhile service to the community and the first president of the Lachute WI is still a member of this committee.

It is the hope of the Library Committee that some time in the near future, they can join with the Carrefour de Livre de Lachute and have a library of which Lachute can be proud.

THANKS EXPRESSED

Mrs. Palmer, QWI Publicity Convenor, would like to thank the Institute friends who have remembered her during and since her hospitalization. She also has a note of appreciation for Mrs. C. T. Harris, Hemmingford, who has sent in the 'Month with the WI' for her.

WI NOTES

Congratulations to YORK which celebrated its 25th anniversary at a special meeting. Four charter members are still most active.

Delegates who attended Provincial Convention have given excellent reports of the business transacted, and of speakers' topics, to their members. Many branches report hearing Convention news.

Christmas Stockings were filled and shipped by many branches and this project is completed for this year.

THE QWI SERVICE FUND

During World War II a "Self Denial Fund" was created. Every member was doing her share to support the war effort; Red Cross work, going into field and factory to take the place of the men, and in many other ways was 'pulling her weight'. Many were asking, though, if there was not something else that could be done, something as an Institute project.

At the Semi-Annual Board Meeting, January 1941, the subject was discussed and this idea was evolved — that every WI member raise one dollar every year, in some form of self denial and turn it into a provincial fund that would be christened just that "Self Denial Fund". Home hairdos instead of the beauty shop, giving up a show, a favourite magazine, that box of candy. It was amazing how the fund grew and several hundred dollars were raised every year, "as a special war gift to the Government" to quote from the resolution passed at that time. It was earmarked for some humanitarian phase of the war, just as much needed as bombs and guns and much closer to a woman's heart.

The first year over \$1,000 was raised. This went to buy two electrically heated food wagon units — each bearing a name plate of the WI — for use at the Military Hospitals at Quebec and Valcartier Camp. The small balance remaining was given to the Queen's Canadian Fund. That was in 1942. The next year, 1943, half went to the Red Cross for parcels for prisoners of war at Hong Kong, the rest divided between Russian Relief (yes, we were friends then). You will recall how we all thrilled at the heroic de-

Fashion Show



The Quebec Women's Institute Fashion Show took place on June 25. From left to right Mrs. Warren Ross, Lennoxville; Mrs. R. V. Beattie, Richmond; Mrs. Gord on Dougherty, Bury, Que.

fence of Stalingrad), and the Queen's Canadian Fund. In 1944, it was all used for the Prisoners of War Fund and again in 1945 and 1946. That last year the sum dwindled to \$540. With the ending of the war many members must have felt the need for this effort was finished.

It should have been mentioned earlier, that this dollar per member, earned during the year, was handed in at the November meetings. Perhaps it was felt that Remembrance Day was an appropriate time to make our own very small sacrifices.

When hostilities finally ceased the question was asked, "Can't we go on earning this and use the fund to help ourselves, our own organization?" There had never been a fund to help expand the Institute itself, and if we were going to forge ahead, or even keep pace in our brave new world, we needed to study, to open up new fields of endeavour, to look to the future.

So, at the annual Board Meeting, June 1946, a motion was passed that the name of this fund be changed to QWI Service Fund, that it be raised in the same manner, be the same amount, paid in at the same time, and to be used "at the discretion of the Board to further the work of the QWI." So reads the motion establishing this fund. This was carried without a dissenting vote. Speaking on the motion at the meeting, the president, Mrs. Smallman, said in part: "We feel it would be wise to build up such a fund. You have been most generous during the past few years. Now, let us determine that we will put our own house in order. I urge that you give your support."

Since that time it has been fairly well maintained. Not quite so generously, many new members not familiar with its background and purpose could account for this, but it is still on a voluntary basis as formerly, and not taken from the funds.

From this fund comes the money to operate the Short Course. We drew on it for our Jubilee Convention and to publish our QWI History and so on. It is to our advantage to keep it in a flourishing and active condition.

LADY ABERDEEN — A GREAT COUNTRY WOMAN

To answer the question — "Why are they called the Lady Aberdeen Scholarships?" the following is culled from ACWW news releases:

Lady Aberdeen took the first vital step towards the calling together of rural women organizations. She had roots deep in the countryside; both her father and her husband were Scottish landowners. She early showed her interest in people, all kinds of people.

An office-holder deserves to know!

In any organization a concise job analysis is most important to assure continuing efficiency of each succeeding office-holder.

Are we fair to our office-holders? Do we inform them of their duties or leave them to find out for themselves? Do we turn over pertinent information or material to them, or store it in a box in the attic?

The strength of our organization, and the responsibility for what it does, rests with each member, and most particularly with elected officers and conveners. Each prospective office-holder deserves to know what is expected of her, and if properly briefed the office becomes, not a burden, but an opportunity.

A very easy way to convey the needed information is to make a "job analysis". An analysis is simply a separation of anything into parts or elements: a job analysis is a specific listing of all the particular items pertaining to a particular area of work.

Let us use a convenership as an example. List first all the routine items, such as: a convener should be on watch for items of particular interest which can be brought to the attention of members at each meeting; a convener is responsible for bringing County, Provincial, Federal questions, decisions and projects to the attention of members; a convener may in certain in-

stances be responsible for special meeting, special projects, or committees, etc. List extra meetings convener is expected to attend, with approximate dates. List reports to be written, with dates, and with a sample copy.

Such an analysis is brief, factual, easy to prepare, and invaluable. It provides the framework within which a convener can do her job well, because she knows what is expected of her. The question "What am I supposed to do?" is answered, not by a vague "You don't have to do much", but by a definite pattern.

This pattern, or list, or analysis, whichever you may choose to call it, should be passed on to each succeeding officer. It will be altered and varied and added to from year to year, but will remain a sound base, using the experience of others, from which a new office-holder can move ahead. This analysis, along with the assorted pamphlets and materials and ideas, which each past office-holder turns over to her successor, will increase the latter's efficiency and effectiveness — which in turn strengthens our total organization. Try it, and see!

Mrs. H. E. Palmer, Hemmingford

When her husband, Lord Aberdeen, was appointed Governor General of Canada and later Viceroy of Ireland, she got to know all types of homes not only in her own Scotland, but in Canada and Ireland as well, so that she knew a great deal about rural communities.

With two short breaks Lady Aberdeen was President of the International Council of Women for over 30 years. This experience made her see the need for some kind of organization to voice the views of countrywomen. She convened a meeting of representatives of rural women from all over the world at the same time and place as ICW meetings were being held in London in 1929, and again in Vienna in 1930. These two meetings, chaired by Mrs. Alfred Watt, were the beginning of ACWW. Until her death in 1939 Lady Aberdeen never ceased to watch over the growth of ACWW which owes so much to her as one of its founders.

She was a rare character. At the time of her death, Mrs. Watt, President of ACWW, said, "There has been sorrow in the hearts of all country women at the passing of a great country woman; Ishbel, Marchioness of Aberdeen and Temair . . . world citizen, an interpreter of the best of humanity in every land, a lover of peace for its own sake . . . For ten years Lady Aberdeen was the Honorary President of the Associated Country Women of the World. We owed our beginnings to her, and our debt has increased with the years. If we have made few mistakes internationally, it is because her wise counsel and unrivalled experience have always been at our disposal, and we have fully availed ourselves of her services and advice. We can but try to fulfill our destiny as she would have wished, in friendship to all, and in the supreme faith of ultimate good."

THE MONTH WITH THE W.I.

ARGENTEUIL: ARUNDEL held an old-fashioned spelling contest. Items for handicraft table and grocery basket brought in for a bazaar to be held in July. BROWNSBURG — Meeting took form of an outing. MacKimmie Bottling Works visited also Carillion Museum where short meeting was held. Plans discussed for exhibits at W.I. Booth at Ottawa Fair. Enjoyed a picnic lunch with ice cream dessert at Lowe's Dairy. FRONTIER entertained Lakefield branch with a musical program. PIONEER made plans to entertain Jerusalem-Bethany branch.

BROME: ABERCORN. A Health Hint was given for Roll Call. AUSTIN heard a report on Library opened July 2 with 35 paid-up adults and several children. Received a donation of oil painting from Miss Collyer for benefit of Library Fund. Mrs. E. Fisher appointed Treasurer of Library Fund. SOUTH BOLTON — Mrs. Rodney Davies won first prize for man's sweater in Salada Foods Contest.

CHATEAUGUAY - HUNTINGDON: AUBREY-RIVERFIELD received several books for Ranfurly Library. DE-WITTVILLE entertained 20 members from Bainsville, Ontario W.I. Mr. Lief Jacobsen of Little Denmark Shop demonstrated flower arrangements and gave tips to home gardeners. Donated \$25 to Dixville Home for Retarded Children. DUNDEE described a kitchen utensil telling where and how made for their Roll Call. Had demonstration of work done by children in school projects in geography, sewing and wood-work. HOWICK heard a delightful talk by Miss Huang of Taiwan, now a nurse at Barrie Memorial Hospital. She spoke about her home education and answered questions. Dessert contest won by Mrs. Wm. Hamilton. Everyone brought a friend making a total of 40 at meeting. HEMMINGFORD entertained Dewittville branch. Written games were played. Mrs. C. Petch presented with a pin-up lamp and guest book for her new home. Mrs. C. Petch representing W.I. had placed a wreath on Cenotaph at Memorial Service. Roll Call — Name a Native Wild Flower. Mrs. W. F. Orr gave three humorous readings also demonstrated a scoop for grain made from plastic Javex bottle and containers from used greeting and Christmas cards. ORMSTOWN entertained Hemmingford Branch. Game of

"Password" played by members and guests.

COMPTON: BROOKBURY voted a donation for Coupon 367. Bought corsages for a member and her husband for 50th wedding anniversary. BURY had as guest speaker Mrs. F. T. Bennett who spoke on her trip to British Columbia. Mrs. G. Dougherty and Mrs. B. Pehleman were models in Fashion Show at Convention. CANTERBURY signed a birthday card to be sent to a member celebrating her 86th birthday. Planned a community children's picnic. EAST ANGUS sent a needlepoint picture for display at Convention. Donated \$25 to Cookshire-East Angus school bursary also \$5 to Cookshire School Fair.

GASPE: DARTMOUTH RIVER voted prizes for two local schools. DOUGLASTOWN exchanged recipes for squares. Started a quilt. HALDIMAND held food sale. Doll's quilt brought in for work calendar. SANDY BEACH voted school prizes. Roll Call was paid by waist measure. Money donation sent to Canadian Save the Children Fund. YORK donated articles for First Aid Kit for Fort Haldimand.

GATINEAU: AYLMER EAST heard Mrs. Patricia Donaldson-Jones, R.N., Director of Dublin Hospital, Aylmer, speak on "The Disease of Alcoholism — its Treatment and Rehabilitation". Presented David Kelley, Grade 7, Aylmer High School, with a book "The Art of Ancient Greece" to mark his success in Public Speaking Contest in his school. EARLEY held a contest conducted by Mrs. Frank Cornu on "Nursery Rhymes" which was won by Mrs. Robt. Bronson. Held a successful cooking sale. LAKEVIEW had as guest speaker Dr. A. J. Hurteau of Ottawa. A question and answer period dealt with the best time to tell an adopted child he had been chosen by a particular family, also gave statistics on the incidence of cigarettes and lung cancer. Dr. Hurteau demonstrated the difference between doctoring 35 years ago and today. RUPERT had as guest speaker the Agricultural Representative for Gatineau who spoke on "Farming in General". The Roll Call was "Wear a Hat of Flowers or Grain". Memorial Service held at Cemetery which was well decorated. WAKEFIELD. Roll Call — bring a hand-made article to be

sold at a Garden Party. Held an Annual Garden Party in aid of Gatineau Memorial Hospital which was organized with the help of Hospital Auxiliaries and Rupert, Wright and Kazabazua Institutes. WRIGHT replaced their June meeting with a tour of Laurier House, The Museum and a dinner and show which was enjoyed by most of the members. Donation of money given to buy a book for prize at school closing at Queen Elizabeth School, Kazabazua. Mrs. Ogilvie, President, presented it. Donation of \$5 to Cancer Society.

MEGANTIC: INVERNESS — A road is being built to a cairn in woods. Four sunshine baskets sent out.

MISSISQUOI: COWANSVILLE answered Roll Call by describing the flag of a foreign country. Held a lively discussion on the proposed new Canadian flag. Heard a very interesting talk on Confederation. DUNHAM answered the Roll Call by describing a remedy grandmother used. Heard reading of a skit given at Franklin Centre by Farm Forum, held a quiz on Canadian history and places, sang "O Canada" as meeting was on July 1. FORDYCE donated \$10 to local 4-H Club. STANBRIDGE made plans for attending unveiling ceremony at Dunham.

PONTIAC: CLARENDON gave a donation towards books for library of Shawville High School. Each member made a hat trimmed with kitchen utensils. Prize given for most original. FORT COLOGNE heard three readings "The Old Iron Kettle", "Hail the Grasshoppers", and "Eleanor Roosevelt, first lady of the World". QUYON heard a paper on "Dr. Elizabeth Blackwell, the first woman doctor". Two Centennial Trees were planted in the Memorial Park. SHAWVILLE Secretary of the Centennial Committee and Pontiac Historical Society outlined their plans for a Horse and Buggy Museum. Also saw a film "Quality of a Nation" which portrayed suggestions for Centennial projects. STARK'S CORNERS heard a talk on "How we can Keep our President". Held a picnic as July meeting. WYMAN had a Guest speaker who gave some interesting information on Civil Defence.

QUEBEC: VALCARTIER gave prizes to schools. Gave proceeds of a sale to

Forgotten Patients in Verdun Hospital. Sent a gift to a local boy recovering from an accident.

RICHMOND: DENISON'S MILLS heard a talk by Miss Dresser, 1st Vice-President of County on the work of the Historical Society. A contest held on items carried in lady's purse conducted by Mrs. A. Boreham was won by Mrs. K. Stevens. Mystery parcel for Sunshine Committee won by Mrs. V. Farant. GORE to complete the W.I. quilt. MELBOURNE RIDGE answered the Roll Call with "Your Likes and Dislikes of the Meetings" written on paper and deposited in a box then read by the 2nd Vice-President and Secretary. Pennies for Friendship collected. Education Convener read clipping from Sherbrooke Record 1934 explaining industries in Kingsbury at that time and life by everyone in those days. Contest of jumbled letters of names of communities found in Sherbrooke Record. First prize won by Mrs. T. Gilchrist and second by Mrs. A. Smith. RICHMOND HILL held a contest on Agriculture. Prize winners were Mrs. Farant and Mrs. E. Smith. RICHMOND YOUNG WOMEN sent \$5 to Presbyterian Church. Heard a safety article concerning safety for children who play in the streets. Contest on tarts won by Mrs. E. Stinson. Afternoon tea held at Presbyterian Church with fancy work and sales tables. SHIPTON received two parcels of remnants and toys for sale at County Fair. Highlight of meeting was presentation of \$10 cheque to Mrs. L. Tremblay on her winning of third prize for hooked rug in Salada Foods Contest. SPOONER POND — Mrs. A. Coddington won second prize in the Tweedsmuir Competition for her sampler. Answered Roll Call with "Name your Parents Birthplace". Played Bingo at close of meeting.

ROUVILLE — Abbotsford: Mrs. Rowell gave a report on the Convention. The group toured the Canadian Celanese plant at Drummondville. Held a Hobby and Antique Show, the children displaying hobbies and the adults a favorite antique. A group of eight girls sang English and French folk songs learned under the leadership of Mrs. H. Marshall.

SHEFFORD: GRANBY WEST held a contest conducted by Health and Welfare Convener.

SHERBROOKE: ASCOT held meeting at Grace Christian Home for Aged, entertained them with a musical program and served tea. BELVEDERE held a quiz on Education. Members brought a guest to meeting and held a bake sale. BROMPTON ROAD ob-

served Grandmother's Day by a display of their hobbies with prizes. Mrs. Sayer won first prize with a hooked rug and Mrs. H. McLeod second with a dress. Each grandmother received a gift and corsage. Members worked at cancer dressings. LENNOXVILLE heard an article on the manufacture and use of sour cream. Celebrated their 50th anniversary by holding Open House. Presented a cheque to High School to purchase Practical Handyman Encyclopedia. Plaque made for Club Room.

STANSTEAD: BEEBE gave a donation to the renovation fund of the Red Brick Schoolhouse at Stanstead North NORTH HATLEY — Program "A Book I have Read and Why I like It". STANSTEAD NORTH — Letter read by one of the members who is on a trip abroad. Held a picnic lunch on schoolhouse lawn, and afterwards toured through Red Brick Schoolhouse to see repairs that have been done. WAYS

MILLS — the Polly Pointer Roll Call was responded to by seven members and eight guests. It was also noted that the Potato Resolution proposed by this County had been approved and adopted at the Provincial Convention. Copies of same have now been forwarded to Potato Growers Association and Farmers' Association.

VAUDREUIL: CAVAGNAL is proud of Mrs. Tinkler who received a second prize for her painting entered in the Tweedsmuir Competition. HARWOOD held a very pleasant and profitable Garden Tea and Food Sale, also their annual picnic for members, friends and children. This year they went to LaFontaine Park where everyone enjoyed a picnic lunch and the facilities and playgrounds of the Park. Vaudreuil County also received a first for samplers in the Salada Contest and a third for pillowcases.



HISTORICAL EVENT AT DUNHAM

Foreground, right of the memorial
Mrs. McElroy, charter member of dunham W.I.; left, Mrs. O. Selby, who donated
land for the memorial.

On July 15 by chartered bus and filled private cars, between 400 and 500 members of the Quebec Women's Institutes converged on Dunham, Que. from widely scattered parts of the Province to watch the unveiling of a cairn commemorating the formation of the first Women's Institute in the Province of Quebec June 27, 1911.

This has been named an historic site by the Commission of Historic Sites Quebec, who provided the bronze plaque and assisted with the cost of erecting the monument which is made of local field stone.

The QWI President, Mrs. J. Ossington, opened the ceremony by introducing Mrs. G. Brown, daughter of Mrs. Geo. Beach the founder and first President, who read the minutes of the

first meeting. She was followed by Mrs. G. D. Harvey, a Past President of the QWI, who gave a resume of the history of the Dunham Institute and the growth of the QWI, with a special tribute to Mrs. Beach.

Mrs. W. S. McElroy, a charter member of Dunham WI, although confined to a wheel chair, was present and assisted in the unveiling. The cairn was draped in the QWI colors of blue and gold and the same colors in bouquets of flowers were placed at the foot of the monument.

Other guests spoke briefly — Mr. Glen Brown, M.L.A. representing the Department of Agriculture, Quebec, and Mr. John Bland the Commission of Historic Sites of Quebec.

Adult Learning

continued from page 8

or professional associations, religious associations, cultural groups, the co-operative groups. For the profit-making organizations, the rate is \$15 per day.

WALDRON: Do you make money?

CARON: It isn't the intention of the centre to make money. As a matter of fact, the By-laws of the Institut, which incidentally is a co-operative, do provide that if there is a surplus of operation, it is to be put into a reserve for bursaries; either for under-developed areas in Canada that need adult leaders, or trainees from under-developed countries.

WALDRON: Do you consider the centre to be bilingual?

CARON: It is not a bilingual centre as such. Its first clientele were French-speaking organizations. We have no prejudice at all against any language, and we are willing to use whatever language is needed, although the basic language for the programs is French. Incidentally, as an example, we are receiving people from French-speaking development areas for a three months program in June. And immediately following this, we are receiving a group of cooperative leaders from the Caribbean for one month, and at this time, the program will be in English.

WALDRON: Well, it really is almost bilingual.

CARON: Yes, almost.

WALDRON: Do you see the possibility of developing similar residential centres in other parts of Canada?

CARON: I think that we should have many such centres. It is a tool by which we can get people to communicate; and personally, I feel that the centre should never become too large so there is the problem of communication. This is what we have tried to do here.

WALDRON: We should have many smaller ones with up to a hundred residents each.

CARON: This is the big difference between the U.S. experience or thinking and ours. I had a discussion about this with an adult educator from the U.S. two weeks ago, and this is where the big difference is. They are building hotel-type centres, while here we have tried to build something where you have a community atmosphere and a possibility of constant human relations. Of course, the best thing for anyone, who wants to realize the type of centre that exists here, is to come and participate and live with us for a couple of days in the form of programs we

develop. They will discover this community spirit, I am sure, and we know now, even only after four or five months of experience, that the structure, the building itself, is playing its role. It is getting people to communicate and to freely express themselves in a context of interchange of ideas. This is what we need in Canada today.

Potatoes Proved Profitable

continued from page 7

of reducing sugars. That limits the choice to a few varieties like Kennebec, Pongo, Avon and Keswick. Cobblers are in demand early in the season, but they must be processed within 24 hours of digging before the starch changes to sugar. Temperatures at digging, in storage or in transit should not drop below 55°; a chilled potato makes a poor chipper.

This year, Eugène is trying something different. Most of his acreage is planted with Netted Gem. He believes it to be the first large scale trial of this variety in Quebec. As the Idaho Baker or Russet Burbank, this potato has commanded a premium in chain stores, where it is sold in trays of three for baking. Because of its high dry matter content, (Eugène's averaged 1.080 specific gravity last year) and its long smooth shape, it is desired by the makers of French fried potatoes. Eugène has a contract with a Laprairie firm who will use it for frozen French fries and par-fried potatoes for the restaurant trade.

But the Netted Gem is a temperamental potato. It is not known as a constant yielder. It has exacting requirements for fertility, moisture, and disease control. But so far, Eugène's gamble seems to be paying off.

A look at the future

What for the future? Eugène Drouin is firmly optimistic. "But I don't think we shall ever again see big prices," he says. "The world is moving fast and so is the potato industry. Fewer growers with much larger acreages will make a good living with a narrower margin. Savings and lower costs of production will come from the fuller use of the big machines we must have. Three hundred acres is the size my combine could now handle in a season." Eugène emphasized that the customer liked local potatoes. "But Quebec growers will have to organize more co-operatives for efficient marketing," he believes.

As for themselves, Eugène looks forward to the day when Bert and Donny will take over the farm. He and Hazel will then be free to develop the campsite on their beautiful river front.

SUBSCRIBE NOW

MACDONALD FARM JOURNAL



Keep Up To Date
With The Latest
Farm Information.

If this is not your copy of Macdonald Farm Journal you should subscribe today

The only farm publication in the Province of Quebec edited in English especially for farmers, their wives and residents of small towns.

Macdonald Farm Journal is getting better all the time. Why not send in your subscription today and thus you won't miss a single interesting issue?

One year \$2.00. Two years \$3.50.

Macdonald Farm Journal
1475 Metcalfe St.
Montreal 2, P.Q.

Please enter my subscription for one year at \$2.00 ; two years at \$3.50 Cheque Money Order herewith enclosed.
Please invoice me:

Name

Address Zone

please print



COLLEGE PAGE

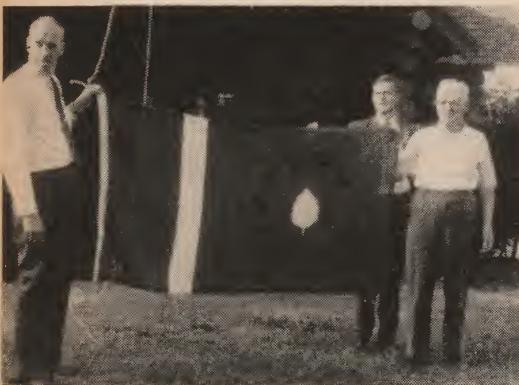
ARBORETUM RAISES NEW FLAG

Everyone is raising a new flag this summer. The Morgan Arboretum is not to be outdone. At the annual meeting in July a new flag was hoisted atop the Chalet.

This new flag features the birch leaf, not the maple, and will be flown for future occasions at the Arboretum.

This flag would not have been possible without the efforts of Mrs. Stewart Forbes of St. Andrews East, wife of Major Stewart Forbes, former Director of Physical Education at McGill. Mrs. Forbes made this flag in less than one week, and her efforts certainly are appreciated. She has made all the flags for McGill and generously donated this one to Macdonald College from which she graduated.

F. A. Harrison and Dr. W. H. Brittain hold the new flag, designer J. Watling looks on.



WOODLOT MANAGEMENT

Mr. J. D. MacArthur attended the Northeastern Forest Tree Improvement Conference at Pennsylvania State College, University Park, Pennsylvania from August 30 to September 1.

Prof. A. R. C. Jones attended the third National Christmas Tree Growers Convention, Cornell University, Ithaca, New York August 20 to 22, and the Canadian Pulp and Paper Association Forestry Field Meeting at Baie Comeau, September 1 to 3.

DR. W. H. BRITAIN HEADS EAST

On August 10 Dr. Brittain left on another "Birch Tree Collecting Trip." This time Dr. Brittain headed east to Newfoundland and Labrador. This is in the opposite direction to which he travelled last summer when he visited the Yukon.

SCIENTIFIC MEETINGS

During the month of August Professor E. Donefer, Department of Animal Science attended two important meetings.

At the meeting of the American Society of Animal Science in Knoxville, Tennessee he presented an invitation paper on "Collaborative *in vivo* studies on alfalfa hay".

Later in the month Professor E. Donefer attended the Second International Symposium on the Physiology of Digestion in the Ruminant at Ames, Iowa.

APPOINTMENTS TO HORTICULTURE

Two outstanding professionals in the field of Ornamental Horticulture have been engaged to teach specialized courses at Macdonald College in Quebec. Mr. Louis Perron, one of Montreal's leading landscape architects, and Mr. Sam Wigdor, a successful commercial florist, have been appointed to the instructional staff, it has been announced by Professor H. R. Murray, Chairman, Department of Horticulture.

Mr. Perron, B.L.A. (Corn.), will teach Landscape Architecture and Design. Mr. Wigdor, B.Sc., (Agr.), M.Sc. (Mich.), will give the courses in Commercial Floriculture and Plant Propagation. These courses will be available to both two-year diploma students and four-year degree students.

STAFF APPOINTMENTS

Dr. Bruce E. McDonald has joined the Animal Science Department as an Assistant Professor. His area of specialization is nutrition. Dr. McDonald was born in Chailey, Alberta. And received both his B.Sc. and M.Sc. degrees from the University of Alberta in 1958 and 1960 respectively. In 1963, he graduated from the University of Wisconsin with a Ph.D. During the past year he has been working as a postdoctoral fellow at the University of Illinois,

Dr. and Mrs. McDonald and their



Dr. Bruce E. McDonald, Assistant Professor, Animal Science Dept.

one year old daughter reside on the campus.

Dr. J. F. G. (Gerry) Millette has joined the Department of Soil Science as Associate Professor, to carry on work in soil and land-use classification. Prof. Millette has just returned from Togo in West Africa, where he was in charge of the Land and Water Resources Inventory, a United Nations Special Fund Project. Before that he was with the Canada Department of Agriculture, in charge of the Soil Survey in New Brunswick.

Land-use studies provide the basic information for rural development programs. With Dr. Millette's work, the College will strengthen its contribution in this important field. Dr. Millette knows the problems of agriculture in Eastern Canada and, in addition to his soil survey experience, he has a broad interest in agricultural production.

Dr. Millette is not a stranger to Macdonald College. He received both his R.Sc. and M.Sc. degrees here in 1945 and 1948, and was associated with the Quebec soil survey. The College community welcomes the Millettes and their family of five boys.

POULTRY BREEDING SEMINAR

The Department of Animal Science recently sponsored the first Provincial Poultry Breeding Seminar. Forty people attended the day-long meeting. This group included hatcherymen, poultry breeders, representatives from the Federal and Provincial Departments of Agriculture, as well as persons from the agricultural schools and universities in the Province.

The morning session was devoted to specific research projects being carried out in the Province. The speakers were Mr. M. Zawalsky and Dr. R. S. Gowe,

CLASSIFIED

NATURALFLOW
MAPLE SAP TUBING FROM
TREE TO VAT WITHOUT
HANDLING

FLOMOR
MAPLE TAP HOLE PELLETS
INSURING A LARGER FULL
SEASON'S FLOW

FREE LITERATURE

Naturalflow Maple Sap Plastic Tubes & Supplies Ltd.
St. Emile de Montcalm, P.Q.

HOME BREWING GUIDE. Beers, wines, orient rice wine, etc. \$1.00 Clark, Box 188H, Tolleson, Arizona, USA.

C.D.A. Research Branch; Mr. W. K. Barr, C.D.A. Poultry Production Branch and Dr. C. O. Briles and Dr. R. O. Hawes from Macdonald College. The afternoon session was of a more general nature. Dr. Gowe spoke on various types of mating systems and Mr. M. S. Mitchell, C.D.A. Poultry Production Branch, spoke on the evaluation and proposed improvements in poultry random sample egg tests. The final afternoon speaker was Dr. Bertrand Forest of the Quebec Agricultural Research Council, who outlined the council's views in regard to the sponsorship of future poultry research in Quebec.

It is hoped that this type of specialty meeting will be continued and that other phases of the poultry industry such as management, pathology and nutrition will be covered in future years. The plan is to hold these meetings at the agricultural schools in the Province and to invite farmers who could benefit from this type of meeting, as well as government and college personnel.

WHAT'S NEW IN BOOKS HOMESTEAD FRONTIER

Stegner, Wallace E. WOLFWILLOW; A history, a story and a memory of the last Plains frontier. N.Y., Viking Press 1962 307p. \$5.95.
Reviewed by Miss Alison Johnston, Macdonald College Library.

Frontiers of any description have always fascinated men and Wallace Stegner is no exception. He, however, has been fortunate to experience living on one and one which went through the stages of transition of the American

JUMBO CLOSE-OUT! Extraordinary fine outdoor pictures, novelties. Generous sample assortment including amazing booklet 30 cts. Giant gentlemen's lot 98 cts. Books: II different \$1. Stamps for collectors. Bargain lot: Rare Mona Lisa, sets, packets, pictorials \$1. High value packet \$3. Gamblers lot, \$5. Catalog value \$10. Rare opportunity for adult collectors. Literature free. Persil, 436 New York Ave., Brooklyn 25, N.Y., U.S.A.

West, from fur-trading to homesteading, in forty years. Mr. Stegner spent his boyhood in a little town on the Whitemud River, close to the Cypress Hills in southern Saskatchewan, when the town was being established as the first permanent settlement there.

When he returns as an adult, it is still a primitive town, almost unreal to him now until he encounters once again the distinctive smell of wolf willow, a native shrub, and he is suddenly home. History, memory and imagination are skilfully intermingled as he takes the reader back with him to savour the atmosphere of homesteading life on the Plains with all its hardships but humour and pleasure too. He narrates the fascinating tale, recently discovered history for him, of how Cypress Hills became the last refuge of animals and men fleeing from destruction. In quick succession the Hills attracted the Blackfoot Cree and many other Indian tribes, the half-French, half-Indian Métis, whisky and gun runners from the States, the Mounted Police and later in the surrounding plains ranchers and homesteaders. There is a thrilling account of the heart-breaking toil of the cowboys who struggled to keep first the cattle and then themselves alive in the terrible winter of 1906-7 when ranching all but died.

Mr. Stegner reveals all the beauty and the savagery of the prairies and his understanding reaches into the people who lived there. His personal experiences and his continued attachment to this small part of Canada make this an intimate book which should find an especially warm reception from all Canadians interested in their heritage.

FREE

THIS PICTURE-PACKED BOOK OF ANIMALS!

Produced by Eminent Naturalists from the Staffs of
THE AMERICAN MUSEUM OF NATURAL HISTORY
THE NEW YORK ZOOLOGICAL SOCIETY



The affectionate kangaroo has been known to carry away a full-grown man.



A baboon may beat his mate to death for keeping the affections of another!

The ILLUSTRATED ENCYCLOPEDIA OF ANIMAL LIFE

(Magnificently Illustrated Version
of the Animal Kingdom)

16 BIG AND BEAUTIFUL VOLUMES

Over 600,000 Instructive Words • Over 1,290 Pictures • Over 775 Full Color Photographs • Over 2,450 Big Pages • 10,000 Wild Life Marvels • 15,000 Subjects and Page References!

What A Wonderful Way for the Whole Family to Enjoy the Wonders of Nature

YOURS TO KEEP FOREVER...Your Fabulous FREE Volume 1 of the most authoritative, all-inclusive, gloriously colorful Wild Life Library ever published! See for yourself how much excitement and joy it will generate in your family for years to come! This giant volume measures 7½" x 10¾". It contains over 190 big pages of finest quality paper—with scores upon scores of especially prepared fine drawings and realistic photographs in glowing FULL COLOR of kangaroos, shrews, cheetahs and wolves, the spiny anteater and duckbill platypus, our American deer and nearly-blind mole—as well as opossums, hedgehogs, you'll find near your home. And playful lemurs from South American jungles. The bull moose, monkeys, porcupines, even that living "teddy bear", the Koala of Australia. They're ALL in this big book—yours FREE to introduce you to...

The Most Monumental Achievement in Wild Life Publishing History!

You, yes receive your FREE Volume on Mammals—the result of years of daring exploration, research and labor on the part of world-famous naturalists, scientists, wildlife illustrators and color photographers—to introduce the full, magnificent 16-volume library of the ILLUSTRATED ENCYCLOPEDIA OF ANIMAL LIFE!

Thrill again and again as you See and Read about Porpoises—water mammals with brains larger than humans, who have been known to rescue drowning persons! Beavers, who have built dams thousands of feet long! The Piranha "cannibal" fish, terror of the jungle rivers...electric eels that can shock a man to wide enough to hold a small automobile!

Imagine having the thousands of questions you and your child want to ask about animals answered by the world's most famous experts...imagine having thousands of nature miracles explained! Yes, here is the most fascinating reading in all literature...but the ILLUSTRATED ENCYCLOPEDIA OF ANIMAL LIFE is also

The Most Informative Scientific Library

It's true...you learn all the secrets, strange customs and lore of animal life most wanted by the general reader in a vast library thoroughly scientific in approach and content. You'll find the scientists' answers to questions like these: How does the weasel change colors with the seasons? How does the heat detecting mechanism of reptiles work? How do birds fly?

The most ferocious animal on earth is the tiger. But do you know what a tiger is? Or a leopard?

Masters of camouflage!...creatures who blend perfectly with their surroundings and can even change their skin coloring!



The cheetah uses his tail as a rudder when making a turn at 60 miles an hour.



The crafty fox kills the wily hedgehog by rolling him into water and waiting for him to uncurl.

AND HUNDREDS AND HUNDREDS MORE!

Over 100,000 in a penguin colony

MAIL FREE GIFT COUPON NOW!

Greystone Press, Dept. R.G., 41 Bertal Rd.,
Toronto 15, Ont.

Please rush my FREE copy of the Big, Exciting, Colorful Volume 1 on Mammals) of the ILLUSTRATED ENCYCLOPEDIA OF ANIMAL LIFE!

I will be entitled to receive other volumes as they are ready, sent to my home for only \$2.98 each, plus a few cents shipping charge. I may accept any volume or return it within 7 days if I am not satisfied. I may buy as many volumes as I wish, or none at all, and I may CANCEL ANY TIME and you will send no further volumes after you receive my cancellation. But whether I continue with the program or not, my giant book about mammals is FREE!

After thrilling to your Big, Exciting FREE Volume 1, you may, if you wish, want to accumulate further volumes of this wonderful 16-volume library as they become ready. Your price is a low \$2.98 per volume, plus a small shipping charge. Volumes come entirely on approval, for 7 days FREE examination. Keep any volume and pay the low price—or return it and owe nothing. You may buy as few volumes as you wish or none at all. Simply write us to "cancel" at ANY TIME and we'll send no further volumes. But whether you continue or not, the giant book about Mammals is yours to keep entirely FREE!

The supply of Gift Books is limited! Mail FREE Gift Coupon to Greystone Press,

NAME..... PLEASE PRINT

ADDRESS.....

CITY..... ZONE..... STATE.....

